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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,850

12/21/2005

Erwin Rinaldo Meinders

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

BIBBINS, LATANYA

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

01/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,850

Applicant(s)

MEINDERS ET AL.

Examiner

LaTanya Bibbins

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10, 13-15 and 18 is/are rejected.
- 7) ☒ Claim(s) 8, 11, 12, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description: Figure 4a, Figure 4b, and Figure 4c as described on page 5 lines 22-24 of the specification . Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: the specification is inconsistent with the preferred/suggested guidelines for the layout of the specification. Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (US Patent Number 5,367,514).**

Regarding claim 1, Kobayashi discloses a method of recording data in the form of marks and for erasing recorded marks in an information layer of a record carrier by irradiating the information layer by means of a pulsed radiation beam, a recorded mark being erased by a sequence of erase pulses, said information layer having a phase reversibly changeable between a crystalline phase and an amorphous phase (column 1 lines 8-17 and lines 36-39, column 10 lines 14-28), characterized in that at least one of the erase pulses in said sequence of erase pulses has an erase power level which is decreasing with time (Figure 17 where the power decreases from 6mW to 4mW and the discussion in column 13 lines 14-21).

Regarding claim 2, Kobayashi discloses the method as claimed in claim 1, wherein at least one of the erase pulses in said sequence of erase pulses consists of n portions, n being an integer number larger than 1, the i-th portion having an i-th erase power level, i being an integer number in the range between 1 and n, the i-th portion preceding the (i+1)-th portion, and wherein the i-th erase power level is higher than the

(i+1)-th erase power level (see Figure 17 where the i-th portion is 6mW and the (i+1)-th portion is 4 mW).

Regarding claim 3, Kobayashi discloses the method as claimed in claim 2, wherein at least one of the erase pulses in the said sequence of erase pulses consists of n portions of substantially the same duration (see Figure 17 where both the 6mW and the 4mW portions are 15 ns in duration).

Regarding claim 5, Kobayashi discloses the method as claimed in claim 1, wherein all erase pulses in said sequence of erase pulses have an erase power level which is decreasing with time (see Figure 17 where the erase power level decreases from 6mW to 4mW over time).

Regarding claim 6, Kobayashi discloses the method as claimed in claim 1, wherein all erase pulses in one sequence of erase pulses are identical (see Figure 20b and the discussion in column 14 lines 25-38 where the shape of all of the erase pulses in the sequence are identical).

Regarding claim 9, Kobayashi discloses an optical recording device for recording data in the form of marks and for erasing recorded marks in an information layer of a record carrier by irradiating the information layer with a pulsed radiation beam, said information layer having a phase reversibly changeable between a crystalline phase and an amorphous phase (column 1 lines 8-17 and lines 36-39, column 10 lines 14-28), the device comprising a radiation source for providing the radiation beam (see the semiconductor laser of Figure 10 element 4) and a control unit operative for controlling the power of the radiation beam and for providing a sequence of write pulses

for recording the marks and a sequence of erase pulses for erasing recorded marks (see the control unit of Figure 10 element 13 and the discussion in column 9 lines 10-23 and 58 – column 10 line 28), characterized in that the control unit is operative for controlling the power of the radiation beam for erasing a recorded mark such that at least one of the erase pulses in said sequence of erase pulses has an erase power level which is decreasing with time (Figure 17 where the power decreases from 6mW to 4mW and the discussion in column 13 lines 14-21).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US Patent Number 5,367,514) in view of Dekker et al. (US PGPub Number 2005/0099924 A1).**

Regarding claim 4, Kobayashi discloses the method as claimed in claim 1 as noted in the 35 U.S.C. 102(b) rejection above. Kobayashi however, fails to disclose while Dekker discloses wherein at least one of the erase pulses in said sequence of erase pulses has an erase power level which is continuously decreasing with time (see the 2T recording mark of Figure 1b and the discussion in paragraphs [0005], [0049], and [0050]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the erase pulse of Dekker into the method of Kobayashi. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to reduce the jitter of the marks (Dekker paragraph [0012]).

Regarding claim 7, Kobayashi discloses the method as claimed in claim 1 as noted in the 35 U.S.C. 102(b) rejection above. Kobayashi however, fails to disclose while Dekker discloses wherein the front portions of the erase pulses in one sequence of erase pulses have different erase power levels (see the 3T marks of Figure 2b and Figure 4b and the discussion in paragraphs [0005], [0052] - [0054], and [0056]).

8. Claims 10, 13-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US Patent Number 5,367,514) in view of Kiyomoto et al. (JP 6-076376).

Regarding claim 10, Kobayashi discloses a method of reading data recorded in the form of marks and spaces in an information layer of a record carrier by irradiating the information layer said information layer having a phase reversibly changeable between a crystalline phase and an amorphous phase (column 1 lines 8-35).

Kobayashi fails to specifically disclose, while Kiyomoto discloses irradiating the information layer by means of a sequence of read pulses of a pulsed radiation beam (see the discussion in paragraph [0021]) and at least one of the read pulses in said

sequence of read pulses has an read power level which is decreasing with time (see the discussion in paragraph [0021] and the triangular read pulses illustrated in Drawing 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the read pulse which decreases with time as disclosed by Kiyomoto into the method of Kobayashi. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to perform reproduction during a time period when the temperature of the disk material is low (Kiyomoto paragraph [0009]).

Regarding claim 13, the combination of Kobayashi and Kiyomoto disclose method as claimed in claim 10, wherein at least one of the read pulses in said sequence of read pulses has a read power level which is continuously decreasing with time (see the discussion in Kiyomoto paragraph [0021] and the triangular read pulses illustrated in Drawing 2).

Regarding claim 14, the combination of Kobayashi and Kiyomoto disclose a method as claimed in claim 10, wherein all read pulses in said sequence of read pulses have a read power level which is decreasing with time (see the discussion in Kiyomoto paragraph [0021] and the triangular read pulses illustrated in Drawing 2).

Regarding claim 15, the combination of Kobayashi and Kiyomoto disclose method as claimed in claim 10, wherein all read pulses in one sequence of read pulses are identical (see the discussion in Kiyomoto paragraph [0021] and the triangular read pulses illustrated in Drawing 2).

Regarding claim 18, Kobayashi discloses an optical recording device for reading data recorded in the form of marks and spaces in an information layer of a record carrier by irradiating the information layer said information layer having a phase reversibly changeable between a crystalline phase and an amorphous phase (column 1 lines 8-35 and column 9 lines 10-43), the device comprising a radiation source for providing the radiation beam (see the semiconductor laser of Figure 10 element 4) and a control unit operative for controlling the power of the radiation beam (see the control unit of Figure 10 element 13 and the discussion in column 9 lines 10-23 and 58 – column 10 line 28).

Kobayashi fails to specifically disclose, while Kiyomoto discloses irradiating the information layer by means of a sequence of read pulses of a pulsed radiation beam (see the discussion in paragraph [0021]), and a sequence of read pulses for reading the information (see the discussion in paragraph [0021]), controlling the power of the radiation beam for reading the information such that at least one of the read pulses in said sequence of read pulses has a read power level which is decreasing with time (see the discussion in paragraph [0021] and the triangular read pulses illustrated in Drawing 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the read pulse which decreases with time as disclosed by Kiyomoto into the control unit of Kobayashi. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the

teachings in order to perform reproduction during a time period when the temperature of the disk material is low (Kiyomoto paragraph [0009]).

Allowable Subject Matter

9. **Claims 8, 11, 12, 16, and 17** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 8, none of the references of record, alone or in combination suggest or fairly teach a method of recording data including all of the limitations of claim 1 wherein **the time dependency of the erase power level of the at least one erase pulse is dependent on properties of the record carrier and the erasing velocity** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper..

Regarding claim s 11 and 12, none of the references of record, alone or in combination suggest or fairly teach a method of reading data including all of the limitations of claim 10 wherein **at least one of the read pulses in said sequence of read pulses consists of n portions, n being an integer number larger than 1, the i-th portion having an i-th read power level, i being an integer number in the range between 1 and n, the i-th portion preceding the (i+1)-th portion, and wherein the i-th read power level is higher than the (i+1)-th read power level** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Regarding claim 16, none of the references of record, alone or in combination suggest or fairly teach a method of reading data including all of the limitations of claim

10 wherein **the front portions of the read pulses in one sequence of read pulses have different read power levels** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Regarding claim 17, none of the references of record, alone or in combination suggest or fairly teach a method of reading data including all of the limitations of claim 10 wherein **the time dependency of the read power level of the at least one read pulse is dependent on properties of the record carrier and the reading velocity** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins



THANG V. TRAN
PRIMARY EXAMINER